

## Introduction

CISAC would like to host a second meeting of the subgroups on biological weapons in the spring of 1988 in the U.S. We have prepared a preliminary agenda and this accompanying discussion paper so that both sides would give some thought to how to prepare for a useful and substantive discussion and also to what kind of expertise would be useful to have on the two delegations. We are eager to receive your views on whether a second meeting would be of interest and on what agenda topics you might like to include.

We believe it is important to maintain a continuing discussion among American and Soviet biologists of the international security implications of biotechnology. Since it is neither desirable nor feasible to restrict the fundamental science or the medical technology that make weapons applications technically possible, sustained dialogue among leading members of the scientific community in both countries can be an important means of building confidence about each side's intentions.

Also of great concern and of mutual interest to the United States and the Soviet Union is the danger of the development of BW capability in third countries. This aspect of the BW problem deserves special treatment and should be considered as a sub-topic under each agenda item so that we think about how any bilateral measures we discuss might be broadened to third parties. At a minimum, both sides should engage in mutual assessment of the risk and perhaps share information with each other about activities of concern in third countries. Some discussion of civil defense might also be useful.

What follows is an explication of what we have in mind for each agenda item plus some ideas about lab visits, delegation composition and specific dates.

### I. Review of Current Programs Related to BW

Both sides should make presentations on this subject. Each could review the information shared on October 15, 1987, through the data exchange agreed to at the April 1987 Experts Conference on the Biological Weapons Convention. The American side will also provide greater detail about its program as set out in official annual Department of Defense reports to Congress; ideally the Soviet side would present information about its BW program in similar detail. Both sides might also present their views on potential hazards posed by new technologies.

## II. Arms Control

### A. Definition of Legitimate and Prohibited Activities

Since the Biological Weapons Convention allows defensive research, this distinction is significant. However, it is inherently very difficult to make in conceptual terms and even more difficult to implement with mutual assurance. Both sides might examine possible strengthening measures to further clarify this distinction. Otherwise, activities that are not prohibited may nevertheless be very threatening.

### B. Principles of Control

Openness: Since the technology that makes weapons applications technically possible emanates from the medical and scientific community, restricting the technology is not a promising means of dealing with the problem. Instead, each side must try to give the other confidence that it is not engaging in a prohibited or otherwise threatening BW development program. One way to do this is to promote greater openness about each side's medical research and development. Openness measures could include but not be limited to systematic reporting on all PII-PIV facilities; registration of personnel working in these labs; and exchanges of scientists in each other's labs. A discussion of how each side classifies the level of caution at its facilities, how production and inspection procedures are handled, and signatures of high containment work would be helpful. Openness can, however, be impeded by personal privacy, proprietary and other concerns, and this issue should be addressed.

#### Quantifying the Line between R&D and Production:

Another way to control potential BW activities would be to try to demarcate the line between research and development and large scale production of pathogens. This could be realized by quantifying the demarcation line and requiring that amounts of pathogens above a certain quantity be declared and registered. In the event there was a question about something that was registered, perhaps an international mechanism such as a neutral test facility could be in place in order to sample and investigate the strain. Samples could be sterilized in order to minimize the proprietary problem.

### C. Compliance: Verification and Enforcement

With the principle of challenge inspections accepted in the chemical weapons negotiations, its extension to biological laboratories and possible production facilities seems natural. We might review the listing of facilities, as agreed upon at the review conference last September, and discuss the degree of information provided about activities at officially listed facilities, as well as the handling of concerns about unlisted facilities.

### III. Biomedical Research: Cooperative Programs

Cooperative biomedical research can have the salutary effect of increasing openness and therefore confidence about each others' research in biotechnology and related fields. Both sides could review the inter-Academy cooperative programs which resulted in part from ideas suggested at our first meeting on BW.

### IV. Confidence-Building: Positive Measures and Impediments

This could include discussion of items such as the positive effects of exchanges of personnel and access to reliable information about what each side is doing.

It should also cover the importance of public health reporting and exchange of information on related public health issues, including those that do not relate directly to BW but do cause concern. This could include discussion of how suspicions are generated and of what standards should govern the public articulation of concerns of this sort, for example allegations that AIDS was invented.

### VI. Programmatic Activities

We believe a program of ongoing visits to relevant sites and labs on each side would be a practical and important supplement to our discussions. As a first step, we are prepared to try to arrange a visit of both delegations to Fort Detrick during our next meeting, and will facilitate any other requests for scientific visits your delegation might make.

### VII. Delegation Composition

We envision that our delegation will include those who attended our first meeting: Joshua Lederberg; Paul Marks; Theodore Woodward; Ivan Bennett; Alexander Rich; and John Steinbruner. It will be supplemented by Institute of Medicine President Samuel Thier; CISAC members Paul Doty and Spurgeon Keeny; and very important will be to add a person with direct experience in biotechnology engineering and production.

### VIII. Possible Dates

(Still canvassing on this)